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TECHNICAL NOTE

FOREST INSECTS AND DISEASES IN KEJIMKUJIK NATIONAL PARK IN 1990

Examination of our national parks for forest insect and disease conditions is conducted annually by Forest Insect and Disease Survey personnel. Some pest problems of note found in Kejimkujik National Park in 1990 are described below.

GYPSY MOTH larvae are voracious hairy caterpillars which can grow to about 6 cm in length. Easily recognized in the larval stage by their five pairs of blue and six pairs of red dots along their back, they are able to consume a wide variety of hard and softwood foliage at an intense rate. They were first found in the Park in 1983 and, due to their great destructive potential, monitoring for this insect has subsequently been conducted each year. With the assistance of Park staff, 500 gypsy moth pheromone traps were placed in the Park in 1990. Pheromone trap results show that 83% of the traps assessed were positive and that the average catch per trap has increased in many locations this year. Ten new egg masses were found 1.4 km southwest of Eel Weir Bridge. Intensive monitoring for this insect will continue in 1991. Visitors are encouraged to report suspected gypsy moths to Park personnel.

OAK LEAFROLLER AND OAK LEAF SHREDDER larvae can, when numbers are abundant, roll or shred their way through enormous amounts of oak foliage. In 1990, there was a slight decline in overall defoliation caused by these insects in the Park, with a 42% average of red oak leaves affected. In spite of reduced population levels and resulting defoliation in recent years, hardly any trees remain "healthy". Results show that while tree deterioration is progressive, tree mortality rate appears to be slowing down.

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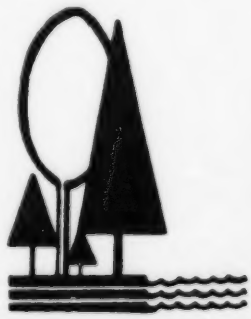

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PINE LEAF ADELGIDS, by inserting their mouth parts into the sap stream of new white pine shoots, cause them to droop, turn red, and die. The adelgid requires both spruce and white pine to complete its life cycle. Damage on spruce is minimal as the adelgids only produce shoot galls which resemble spruce cones. In 1990, there was a continued reduction in affected white pine shoots in the Park and across Nova Scotia. In the Park, an average 24% of white pine shoots were affected, with a high of 63% of shoots damaged at Rogers Brook. Low numbers of adelgids on white pine and galls on red spruce may indicate a further damage reduction in 1991.

PORCUPINES continue to girdle various conifers at scattered locations throughout the Park. At Big Dam Lake, 80% of dense growth roadside larch were chewed and 44% of young red pine at Rodgers Brook were damaged.

WHITE PINE WEEVIL as tiny, legless larvae, tunnel down the leader of white pine and some spruce causing the top whorl to wither, turn red, and assume the shape of a shepherd's crook. White pine damage ranged from 8 to 44% at several locations in the Park.

BIRCH LEAFMINER larvae feed between the leaf layers causing the leaves to turn a reddish-brown color. This scorched appearance was observed on wire birch at light and moderate levels, at Big Dam Lake and George Lake.

SPRUCE BUDWORM has not been a significant problem in the Park or indeed on mainland Nova Scotia for several years. However, FIDS rangers will continue to monitor this vigorous feeder in 1991.

Other pests of interest: **birch casebearer** damaged 16% of white birch leaves at Grafton Lake; **fall webworm** was found at scattered locations on alder, birch, cherry, and beech; **alder flea beetle** caused light to severe browning on alder; **wax filament scale** was observed on 8% of white birch trees at Grafton Lake; **mite piles** on red maple and white birch, and **leafhoppers** on red maple were found at trace and moderate levels throughout the Park.

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